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**CC:**  
**Subject:** hydraulic fracturing in the news

### **Use of rock mechanics laboratory data in geomechanical modelling to increase confidence in CO2 geological storage**

International Journal of Greenhouse Gas Control, Volume 11, November 2012, Pages 304-315  
Peter Olden, Gillian Pickup, Min Jin, Eric Mackay, Sally Hamilton, James Somerville, Adrian Todd  
Coupled geomechanical modelling of a CO2 geological storage site. Predictions of potential for failure of the intact and fractured (faulted) rock. Rock mechanics laboratory data used to improve the model predictions. Importance of accurate predictions of the pressure response of the system.

### **Price tracker launched for Eagle Ford crude**

Nathanial Gronewold, E&E reporter Energywire Published: Wednesday, October 17, 2012

HOUSTON -- A leading energy and commodity market information and pricing firm has introduced a platform for tracking the price of crude oil coming from the booming Eagle Ford Shale production zone in south Texas.

Yesterday, Platts, a division of McGraw-Hill Cos., announced the launch of its Eagle Ford Marker. The firm says it's the first independent price assessment that will track the daily price fluctuations of light sweet crude oil produced from the expanding shale oil operations there.

The move is an attempt to arrive at a new benchmark price for crude pulled from the oil-rich zones of the Eagle Ford. Benchmark pricing helps end buyers assess the pricing that producers are quoting for their crude oil.

Currently, West Texas Intermediate (WTI) crude settlement pricing at Cushing, Okla., used by the New York Mercantile Exchange is considered the domestic benchmark oil price. But the prices actually paid for oil pulled from various production zones like the Eagle Ford or Bakken shale often vary from WTI.

To further improve oil price transparency, Platts says it will also begin publishing average daily crude prices posted by pipeline and other midstream companies. The new Platts Eagle Ford Marker price point assessment will "reflect the value of a median 47-API Eagle Ford crude barrel" based on Platts' pricing methodology and "adjusted for U.S. Gulf Coast logistics," Platts said in its announcement.

The company announced the market tracking tool at the beginning of its second annual Commodities Week gathering of energy and petrochemical traders and other industry players, under way in Houston now.

Eagle Ford Marker "will help the market establish a benchmark value for Eagle Ford, despite the stream's inherent variability," said Platts senior manager Suzanne Evans.

Platts has already launched pricing tracking tools for other major U.S. shale oil and gas zones. Two price reference trackers for Bakken Blend crude oil were introduced in 2010, and in October the company began offering more detailed price assessments for natural gas delivered from the Utica and Marcellus shale regions.

### **Are enviro activists demanding 'none of the above' in New York?**

Colin Sullivan, E&E reporter Energywire Published: Wednesday, October 17, 2012

NEW YORK -- Empire State energy pundits have lobbed a tough challenge at environmentalists who may have backed themselves into a coal-supporting corner by loudly opposing nuclear power as well as natural gas from high-volume hydraulic fracturing.

Andrew Revkin, a former New York Times environmental reporter turned opinion writer, and John Horgan, a blogger at

Scientific American, published columns on the pesky irony this week. Both are residents of the Hudson River Valley, which is home to Indian Point Energy Center's 2,060 megawatts of nuclear power on the east side of the river, and both mulled over difficult positions taken up by activists in their home state.

At issue is how the environmental movement here has been making a lot of noise in the past year about fracturing, or fracking, in an attempt to influence Gov. Andrew Cuomo (D) into holding up a moratorium against the drilling practice. That adds to an older campaign in the state to stop Indian Point's relicensing application, which is pending at the Nuclear Regulatory Commission to extend permits for the plant's two reactors that end in 2013 and 2015.

Revkin in a column this week called more energy conservation a laudable goal, but he pointed out a reality many activists may not have considered.

"Even if energy conservation were pursued more aggressively in the state ... scratching off New York natural gas and nuclear power would clearly lead to more reliance on coal-generated electricity or gas extracted in other states unlikely to have the safeguards that are inevitable in environment-minded New York," he wrote.

Horgan went with the same themes in a column dated Oct. 15, the same day of Revkin's piece. In a post on the Scientific American website, Horgan writes that he once supported decommissioning of the nuclear plant just 35 miles north of New York City but lately has come to a changed view.

"I'm still clinging to the nuclear bandwagon," he wrote. "If we shut down Indian Point and other nuclear power plants, we will become even more dependent -- at least for the foreseeable future -- on fossil fuels, which, in addition to spewing out toxic pollutants, also contribute to global warming."

Hearings on Indian Point began this week at the NRC amid predictions from some environmental groups that the milestone marks the "beginning of the end" for the facility (Greenwire, Oct. 15).

Horgan goes on to argue that New York runs the risk of becoming the next Germany, which famously said it would close its nuclear plants after the 2011 meltdown at the Fukushima Daiichi plant in Japan only to realize this could mean a return to coal-fired facilities.

To Horgan, all this puts the anti-fracking activists in a bit of a hole. He argues that the movement can't really oppose Indian Point, coal and fracking without considering the hard economics of electricity supply and demand, which still require a steady supply of baseload power not yet provided by renewable technologies like solar or wind.

"So what should we do?" Horgan asked. "My fellow greens, I understand your concerns about nukes and fracking. But if you shun both of these options, we'll be stuck ... with the worst alternative of all: deadly, dirty coal. Surely you don't want that."

A recent analysis of the situation by the New York Independent System Operator seems to bear their concerns out. The grid manager said retirement of Indian Point combined with the phasing out of coal will leave the state with a tough reliability equation in just a few years (EnergyWire, Sept. 20).

And in a different report this year, the New York ISO said much of the downstate region -- which is the most heavily populated part of the state -- will continue to rely on conventional fuels for the foreseeable future. The power generation fuel mix is 37 percent mixed gas/oil, 16 percent gas, 14 percent nuclear, 11 percent hydro, 8 percent oil, 6 percent coal, 4 percent hydro-pumped storage, 3 percent wind and 1 percent others, including solar.

Adding to this sense of trying to have it both ways within the green movement is an increasingly vocal protest in New York City against a gas pipeline to be built by Houston-based Spectra Energy. The pipeline was approved in part to improve New York City's air pollution problem and cut its contribution to climate change by replacing much dirtier heating oil with gas, but activists lately have been trying to block construction into the west side of Manhattan.

Writing in the United Kingdom's Guardian last week, best-selling author Naomi Wolf appeared to back or at least publicize some of the arguments put forward by the protest group, which has dubbed itself "Occupy the Pipeline" after the Occupy Wall Street movement. Among the positions the group has taken is that gas from the Marcellus Shale is a fuel with "70 times the average radioactivity of natural gas and very high radon content."

"The trouble with the noble gas (meaning that it is an inert gas) is that it was not one of the issues looked into by the Federal Energy Regulatory Commission when it analyzed the pipeline project," Wolf wrote. "The commission asserted that radon risk assessment was 'outside their purview' ... but the element has been linked to increases in the risk of lung cancer among non-smokers, claims Occupy the Pipeline, and poses a special risk to New Yorkers."

Wolf adds in her column that New York City Councilwoman Christine Quinn (D), a contender to replace Mayor Michael Bloomberg (I), has been approached by Occupy activists about the radon charge. Quinn so far has not agreed to meet with the group, Wolf said.

In 2011, Wolf was arrested in New York City while taking part in the Occupy Wall Street protests. The anti-Spectra campaign attracted a good deal of local attention earlier this month when activists got naked, painted themselves green and reportedly danced on the West Side Highway.

#### Enviros fight back

At least one outside observer believes the groups are pressing their luck.

"Whether environmentalists like it or not, the truth is the United States must rely on both relicensing of the existing nuclear fleet and greater production of new shale gas to keep emissions down during the long transition to a low-carbon economy," said Paul Bledsoe, an independent consultant who worked on climate and energy issues in the Clinton White House.

But how do environmentalists answer all this? Like others, Katherine Nadeau, water and natural resources program director for Environmental Advocates of New York, took issue with the premise, saying, "No one is backing themselves into a corner.

"I would point out that the way the conversation is being framed serves the oil and gas industry's attempts to paint New Yorkers with significant and legitimate concerns as unrealistic," she wrote in an email. "Choosing amongst a variety of energy sources is not so simple as turning one off and turning on another. There are many complex factors at play that determine where New York gets its power."

Nadeau also pointed to a recent study funded by the Natural Resources Defense Council and Riverkeeper that argued New York will maintain its surplus of power capacity through 2020 even if Indian Point shuts down. The report tries to make the case that a portfolio of energy efficiency, renewables, and new power lines to upstate wind and Canadian hydropower would do the trick (Greenwire, Oct. 12).

At NRDC, lead media associate Kate Slusark Kiely said Horgan got it wrong in his column when he said all parties agree an Indian Point closure would mean more natural gas. She said Horgan and Revkin presented "a false choice," again alluding to the recent study that argued for replacing the nuclear power with a blend of renewables, efficiency and new power lines.

The study "does not recommend increased natural gas; it does not say that increased natural gas generation will have a role; nor do we believe that it must," she said.

NRDC's Kit Kennedy reacted, as well. In a blog post, she asked Revkin to read the NRDC/Riverkeeper report more thoroughly and noted that the study in question was prepared by Synapse Energy Economics, an independent energy consulting firm, though it was funded by the groups.

"The report provides a detailed policy roadmap for the state to follow in order to do this," Kennedy wrote to Revkin. "So I think your quick skim misled you. No energy tradeoffs here."

The Synapse report said New York can offset Indian Point with 1,000 MW of energy efficiency and 1,000 MW of new renewables, much of which would come from wind, both onshore and off.

"The costs of an accident at Indian Point would be incredibly high in terms of the human toll and the economic devastation," Kennedy added, "and any effective evacuation would be near impossible. So we believe that investing in these clean energy resources as an alternative to Indian Point is common sense."

#### 'Not just saying no to anything'

More broadly, other leading voices in the environmental community dismissed the notion that activists are guilty of a "none of the above" reality. Paul Gallay, president of Riverkeeper, said Synapse is a credible economics consulting firm that does work for state public utility commissions. He also rejected the notion that a certain brand of wackiness had entered the public dialogue via the fracking debate, though he would not comment directly on the Spectra protests.

Referring to the 80,000 comments received by the state of New York on fracking, Gallay insisted that many were

substantive and serious and legitimately wanted to know about cancer risk and water contamination.

"These people are not just saying no to anything," he said. "They're saying, do not put fracking on us without first acknowledging and dealing with the risks."

On Indian Point, Gallay said the Synapse study offered "an aggressive but feasible" way to replace the plant's power. Doing so would cost a single New York resident \$14 per year, he said, adding that, in his view, the New York ISO was using conservative estimates of what's possible.

"The ISO was much more conservative than the facts on the ground indicated," he said.

Asked what Cuomo is likely to do on fracking permits, which have been delayed again by calls for a public health study, Gallay said he believes Cuomo will make the best decision available to him.

"He can be trusted to keep to his promise on science and the law," he said.

No one contacted for this story would comment on the claim by Occupy the Pipeline that shale gas from the Marcellus region is higher in radioactivity, though Gallay said Riverkeeper was taking a look at the issue. An explanation on the Occupy group's website says shale gas from the Marcellus region would be "transported at such a high rate of speed from the drill well to N.Y.C. that the radon will have no time to decay to a safe level."

Click here to see Horgan's piece. <http://blogs.scientificamerican.com/cross-check/2012/10/15/no-nukes-no-fracking-more-coal-indian-point-debate-highlights-green-quandary/>

Click here to see Revkin's. <http://dotearth.blogs.nytimes.com/2012/10/15/no-indian-point-no-fracking-more-coal-burning/>

Click here to see Wolf's. <http://www.guardian.co.uk/commentisfree/2012/oct/12/occupy-pipeline-battles-fracking-threat-new-york>

### **Texas Senate candidate says re-elected Obama could ban fracking**

Energywire Published: Wednesday, October 17, 2012

If President Obama is re-elected, the U.S. shale industry can expect to see heavier regulations -- or even a ban -- on hydraulic fracturing, said Republican Senate candidate Ted Cruz.

"I think the Obama administration is paving the way to do that in a second term," he said during a trip to Midland, Texas.

Cruz said Obama and his supporters have shown "irrational antipathy" toward the oil and gas industry and predicted that if Obama is elected for a second term, his administration will crack down on the controversial fuel extraction method.

Local leaders agreed.

Permian Basin Petroleum Association President Ben Shepperd said the oil and gas tax provisions Obama has said he would eliminate "are similar to those available to all types of businesses, and their elimination would devastate the Permian Basin."

Cruz said last week that the Republican Party has failed to convey the economic opportunities available through the Texas shale. Production in the Permian and other formations could be the key to bringing heavy manufacturing back into the United States, he said.

"I think there's an obligation as a senator from Texas to help tell the energy story," Cruz said. "I think it's a providential blessing that we have this energy bonanza at a time when this country needs an economic jolt."

His Democratic counterpart, Paul Sadler, said that while fracturing is "here to stay," industry and government officials need to find better ways to do it.

"What I am concerned about is what I think concerns a lot of Texas farmers and ranchers, which is the amount of freshwater we're using in the [fracturing] process," he said. "We need to do a better job of developing alternatives to that or finding a way to reuse that water."

Sadler said U.S. EPA, aided by a more streamlined resolution process, could play a role in addressing the problem (Sara Higgins, Midland Reporter-Telegram, Oct. 14). -- PK

## **State not leasing new park acres for drilling -- Gov. Corbett**

Energywire Published: Wednesday, October 17, 2012

Pennsylvania officials are not seeking to lease additional forestland or park acres for gas drilling, Republican Gov. Tom Corbett said Monday.

Rumors that the state was considering such a move started flying earlier this month when Pennsylvania Parks Director John Norbeck was dismissed from his post (EnergyWire, Oct. 9).

"Can we put that to rest? I don't know where that came from," Corbett said during a news conference about the state drilling impact fee. "There was a moratorium put on the state forests. We haven't lifted that. We haven't even talked about lifting that. We haven't talked about drilling in the state parks."

Shortly after his dismissal from the Parks Department, Norbeck told the Pittsburgh Post-Gazette that he and the Corbett administration had "philosophical differences" regarding drilling and mining in state parks.

Since natural gas prices are currently so low, Corbett said the state would be "competing against" itself if it decided to produce additional gas from parklands (Pittsburgh Post-Gazette, Oct. 16). -- PK

## **Colo. draft setback, water rules draw sharp criticism from enviros**

Scott Streater, E&E reporter Energywire Published: Wednesday, October 17, 2012

Colorado regulators have unveiled formal draft oil and natural gas drilling setback and groundwater monitoring rules that they say will reduce the impacts of drilling near schools and residential areas but that conservationists worry will not do enough to protect public health and the environment.

At issue are proposed rule changes initially outlined last month by Colorado Oil and Gas Conservation Commission (COGCC) Director Matt Lepore and presented this week in two formal draft proposals aimed mostly at addressing nuisance issues like noise and light pollution associated with drilling near neighborhoods and public schools.

The 40-page draft setback rule proposes establishing four zones, including a "High Occupancy Building Unit Zone" that would require approval from the nine-member COGCC to place wellheads or production facilities within 750 feet of a public school, hospital, nursing home or jail "which is designed to serve 50 or more persons." It would also establish "Designated Outside Activity Area" zones that would forbid wells drilled within 350 feet of an outdoor theater, playground or recreation area.

In addition, the draft rule would forbid wells from being drilled within 350 feet of an occupied home or building in both urban and rural areas without first obtaining written consent from the property owners. Current state setback rules call for a 350-foot buffer from buildings in urban areas and a 150-foot buffer in rural areas.

The draft setback rule also includes requirements for oil and gas drillers to notify nearby landowners, to develop a traffic plan at drilling sites, and to include mitigation measures addressing noise and other nuisance issues in state drilling permits. But the draft rule would also establish exemptions allowing the COGCC director to waive setback requirements "when a well or production facility is proposed to be added to an existing or approved Oil and Gas Location," and where the director "determines alternative locations outside the applicable setback are technically or economically impracticable."

A separate two-page draft groundwater rule calls for establishing statewide groundwater baseline sampling and monitoring regulations designed to expand COGCC's existing sampling requirements and a voluntary monitoring program overseen by the Colorado Oil & Gas Association.

Among other things, the draft groundwater rule would require drilling operators to conduct sampling from two groundwater sources "or springs" within a mile radius of the proposed drilling site before construction can begin. The proposal would require additional sampling within 18 months "following any well completion or facility installation," and again within five years of the last sampling.

A state setback review stakeholders group composed of local government leaders, industry representatives, environmentalists and citizens groups has been analyzing the issue since February, and Lepore sent the two draft documents in an email Friday to the group members.

The two draft rules make good on Lepore's vow to quickly move the rulemaking process forward, with a goal of having the

COGCC commission grant final approval of the new rules by early January.

The COGCC has set a Nov. 14 public hearing to be overseen by Colorado Deputy Attorney General Casey Shpall. The state has also set a prehearing conference to gather public comments and input on potential "contested matters and issues" likely to be raised at the November hearing, according to a public notice issued this week.

"We've been holding stakeholder meetings since early this year, with a variety of participants, including homebuilders, developers, industry, agricultural interests and local governments," Lepore said late yesterday in an emailed statement to EnergyWire. "Setback distance is only one part of the equation, and it's worth noting that the majority of stakeholders have said they'd prefer no changes to current setback requirements.

"The rules we've proposed also focus on enhanced communication between operators and the communities where they are conducting oil and gas operations, as well as greater mitigation of nuisance impacts, such as noise, lighting, odor and dust arising from operations. In addition, we've proposed a greater comment period to give occupants and local governments more time to engage in our permitting process."

Enviros: 'a long way to go'

But Colorado environmentalists yesterday blasted the draft setback rules, which don't increase the 350-foot setback from wells and occupied buildings in urban areas.

Oil and gas setbacks and groundwater monitoring have become big issues in the state thanks to the booming Niobrara Shale formation, which underlies much of eastern Colorado's Front Range. Oil prospectors are looking for promising drill sites in areas that have not experienced much drilling before, such as the greater Denver metropolitan area, sparking growing public concern along the Interstate 25 corridor, from Fort Collins to Pueblo.

Various county and municipal governments have adopted or proposed rules and regulations on drilling activity, in part to deal with nuisance issues but also to address mounting public concern over hydraulic fracturing -- the controversial technique of injecting water, sand and chemicals underground at high pressure to create fissures in tight rock formations that allow oil and gas to flow to the surface.

"The state's proposed change to minimum distances between fracking and homes is to keep current policy virtually unchanged," said Charlie Montgomery, the energy organizer for Denver-based Conservation Colorado. "The current separation in urban and suburban areas is 350 feet. The state's proposed separation is 350 feet."

As a result, "This first draft proposal has a long way to go to be where it should be," said Mike Chiropoulos, Western Resource Advocates' lands program director in Boulder, Colo. "We're not going to sign off as is."

Western Resource Advocates and other groups have requested that the state extend minimum setbacks to 1,000 feet, while the Sierra Club's Rocky Mountain Chapter last month sent a letter to Lepore requesting that minimum setbacks be extended to 2,000 feet.

"As fracking and drilling operations take place next to or even within neighborhoods, the central concern of families is their health and welfare, and in particular their potential exposure to toxic emissions," said Josh Joswick, staff organizer of Colorado energy issues for the Durango, Colo.-based San Juan Citizens Alliance. "The state's proposal is not tackling the problem everyone is talking about."

Representatives with the state's oil and gas industry have argued no evidence has been presented during seven months of stakeholders group meetings to indicate that changes are needed to the setback rules or groundwater monitoring guidelines.

Tisha Schuller, president and CEO of the Colorado Oil & Gas Association, said in an emailed statement that her group is reviewing the draft rules but that it plans "to continue to engage in the stakeholder discussion, and we will also participate as a party to the rulemaking."

Schuller added: "The draft rule impacts many important stakeholders that play a large role in the economic success of this state, and we look forward to working with them as we move ahead. Because we all use and require energy, we must collaborate to find pragmatic solutions emphasizing responsible development."

Lepore said in his statement that COGCC has tried to balance the interests of all the stakeholders in the draft rules.

"It's important to recognize the myriad and significant public policy challenges at play," he said, "which include legal

matters of property and mineral rights, as well as access to critical resources we all depend upon, economic activity, housing costs, suburban sprawl and quality of life."

#### Environmental concerns addressed

The oil and gas industry has been clear that no evidence has been presented during the setback review stakeholders group meetings to indicate that increasing setbacks would better protect public health and the environment.

Indeed, Lepore said at a stakeholders group meeting last month that he agrees with the oil and gas industry on that point.

But there are several proposed stipulations in the draft setback rule that appear aimed at reducing emissions of air pollutants and addressing public concern about possible groundwater pollution.

Example: All crude oil, condensate and produced water tanks "with a potential to emit" 5 tons per year or more of volatile organic compounds (VOCs) -- a key component in the formation of ground-level ozone pollution -- in any of the designated zones, or within 1,000 feet of a school or hospital, must use an emissions control device "capable of achieving 95 percent control efficiency" for VOCs.

The current state setback rule limits these restrictions to heavily drilled Garfield, Mesa and Rio Blanco counties in northwest Colorado, "and within [a quarter of a] mile of a building unit, educational facility, assembly building, hospital, nursing home, board and care facility, jail, or designated outside activity area."

The draft setback rule would also forbid any storage or waste pits that can generate 5 tons per year or more of VOCs within any of the buffer zones, or 1,000 feet of a school or hospital or outdoor playground or theater area.

The draft rule would also require drilling operators to install "low- or no-bleed pneumatic devices" that cut down on so-called fugitive emissions of pollutants when these existing valves are repaired or replaced. The current state rule requires this to be done "where technically feasible."

The new rule also proposes to control "fugitive dust" from truck traffic that can produce particulate matter pollution and calls for restricting "construction activity during high-wind days" and installing "silica dust controls when handling sand used in hydraulic fracturing operations."

In addition, the draft groundwater sampling and monitoring proposal would allow the COGCC director to "require further water well sampling at any time in response to complaints from water well owners," according to the draft proposal.

Click here to read the draft setback rule. [http://www.eenews.net/assets/2012/10/17/document\\_ew\\_02.pdf](http://www.eenews.net/assets/2012/10/17/document_ew_02.pdf)

Click here to read the draft groundwater monitoring rule. [http://www.eenews.net/assets/2012/10/17/document\\_ew\\_01.pdf](http://www.eenews.net/assets/2012/10/17/document_ew_01.pdf)

Streater writes from Colorado Springs, Colo.

#### **Green groups sue to block new permits for oil and gas wells**

Anne C. Mulkern, E&E reporter Energywire Published: Wednesday, October 17, 2012

Environmental groups yesterday filed a lawsuit seeking to bar California from issuing any more permits for oil and gas drilling until it toughens state oversight.

The Center for Biological Diversity, Earthworks, the Environmental Working Group and Sierra Club California charged that California too often exempts new wells from environmental review or issues a declaration finding no significant negative effects.

Both practices violate the state's environmental protection law, the suit claims. It is problematic, the suit said, in light of concerns over hydraulic fracturing, or "fracking," the process of injecting high-pressure volumes of chemical-laced fluid into shale rocks to bring oil and gas to the surface.

"The people of California don't know where or when the drillers are fracking, what chemicals they are using, what pollutants they're releasing into the air and water, and what other risks they are taking," said George Torgun, attorney for Earthjustice. "The state hasn't required them to disclose any information on fracking activities."

The complaint filed in Alameda County Superior Court seeks an injunction blocking any new permit approvals until the state Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR) "complies with its legal

requirements to evaluate and mitigate the significant environmental and public health impacts caused by hydraulic fracturing."

The case against DOGGR arrives as California is considering new regulations on hydraulic fracturing (EnergyWire, July 26). California this summer held a series of workshops to hear public concerns about the practice. DOGGR did not respond to an inquiry yesterday about when those regulations will be forthcoming.

Unlike in other parts of the country, where fracking is generally used to extract natural gas, it is most often used to remove oil in the Golden State. California ranks fourth in the country for fossil fuel production.

There's potential for that to grow.

California has an oil-bearing shale location that is the largest in North America, according to the Energy Information Administration. The Monterey Shale site stretches from the middle of the state to Los Angeles County and holds potentially 15.5 million barrels of recoverable oil, said Tupper Hull, spokesman for industry group Western States Petroleum Association.

Throughout the state, oil and natural gas companies last year used fracking on 628 wells, the Western States Petroleum Association said in May. It remains a small portion of exploration with more than 47,000 active wells in the state, Hull said at the time.

The state had not yet been served with the suit, Ed Wilson, spokesman with the California Department of Conservation, said yesterday.

"If they do, we will review it and respond as necessary," Wilson said, adding, "we do not comment on pending litigation."

The Western States Petroleum Association had not reviewed the suit but defended hydraulic fracturing.

"It's our view and remains our view that hydraulic fracturing is a safe technology" that has been used for many decades in California, Hull said. "No one has ever brought forth evidence of harm in California."

As well, Hull said, "the practice of extracting oil in California is heavily regulated."

Shale and fault lines

Environmental groups, however, argued that extraction of oil and gas in the state has changed.

California wells have been pumping oil for more than 100 years, they said, but the more easily found petroleum reserves have been used up. Oil companies have turned to fracking to access deposits that are beneath central and Southern California.

Shale formations span 1,700 square miles across the San Joaquin Valley to the Pacific Ocean, including the Los Angeles Basin, a region crisscrossed with active earthquake faults, the activists said.

In addition, environmental groups said, the practice generates methane, a greenhouse gas that is more damaging than carbon dioxide. California has passed a law mandating that the state by 2020 cut its greenhouse gas emissions to 1990 levels and that by 2050 it shrink them 80 percent below the 1990 point.

"The state is risking California's public health and environment by refusing to apply [the California Environmental Quality Act] to fracking," said Jennifer Krill, executive director of Earthworks. "Without it, the public is in the dark about fracking's impacts on our health and environment. It's time for the oil and gas industry, and state regulators, to stop denying fracking's negative impacts and start working to prevent them."

CEQA mandates that each state agency prepare an environmental impact report (EIR) when proposing to approve a project that might have significant impact on the environment "and to mitigate or avoid those significant impacts whenever feasible to do so," the lawsuit says.

"Yet the environmental review of oil and gas activities conducted by DOGGR for CEQA purposes does not even mention, let alone analyze or mitigate, the potential impacts from fracking," the suit says. "In fact, DOGGR regularly permits new oil and gas wells without any environmental analysis at all by categorically excluding such projects from CEQA based on regulatory exemptions for 'Minor Alterations to Land' or 'Existing Facilities' that are wholly inapplicable to such activities."



## **Suit Aims To Halt California Fracking**

Inside EPA Posted: October 16, 2012 Follow Clean Energy Report

Environmentalists are suing California regulators in a bid to halt hydraulic fracturing operations in the state by arguing the state is failing to adequately assess potential environmental harm from fracking before issuing drilling permits as required under a state environmental quality law.

The lawsuit filed Oct. 16 in California Superior Court for the City and County of Alameda marks a new legal tactic by environmentalists to slow or block fracking projects given what they see as inadequate federal controls to prevent adverse environmental impacts from the operations. [http://cleanenergyreport.com/iwpfile.html?file=oct2012%2Fepa2012\\_1924.pdf](http://cleanenergyreport.com/iwpfile.html?file=oct2012%2Fepa2012_1924.pdf)

Environmentalists are also pursuing litigation under the Endangered Species Act (ESA), claiming fracking operations fail to meet ESA standards to assess the impacts on species.

The environmental groups that filed the suit want a ban on approval of new fracking for oil in the state until regulators comply with California law requiring reviews of project's potential adverse environmental impacts, and to take steps to mitigate any predicted impacts.

Almost all of California's fracking operations are used to extract oil, in contrast to other parts of the country where fracking has emerged as a controversial procedure to extract natural gas in shale formations. The coalition of environmental groups that filed the state lawsuit claim that regulators are failing to fully assess key issues associated with fracking -- despite a requirement under the California Environmental Quality Act (CEQA) to fully analyze the practice's impacts.

"Right now, the people of California don't know where or when the drillers are fracking, what chemicals they are using, what pollutants they're releasing into the air and water, and what other risks they are taking. That's because the state hasn't required them to disclose any information on fracking activities," said Earthjustice attorney George Torgun in an Oct. 16 statement.

Earthjustice filed the suit on behalf of the Center for Biological Diversity, Earthworks, Environmental Working Group and Sierra Club, against the California Department of Conservation (DOC) and its Division of Oil, Gas & Geothermal Resources (DOGGR).

The lawsuit claims that DOGGR has a "practice of approving permits for oil and gas wells after exempting such projects from environmental review or otherwise issuing boilerplate negative declarations finding no significant impacts from these activities," which the environmentalists say "undermines the fundamental review requirements of CEQA."

The environmental groups charge that there are "several significant environmental and public health impacts associated with hydraulic fracturing, including the contamination of domestic and agricultural water supplies, the use of massive amounts of water, the emission of hazardous air pollutants, and the potential for induced seismic activity," the lawsuit states.

"Yet the environmental review of oil and gas activities conducted by DOGGR for CEQA purposes does not even mention, let alone analyze or mitigate, the potential impacts from fracking. In fact, DOGGR regularly permits new oil and gas wells without any environmental analysis at all by categorically excluding such projects from CEQA based on regulatory exemptions . . . that are wholly inapplicable to such activities," according to the suit.

The groups are seeking declaratory relief that the state regulators' review of fracking operations violates CEQA's mandate that each state agency prepare a full environmental review when it proposes to approve or a discretionary project that may have a significant impact on the environment, and to mitigate or avoid those significant impacts whenever feasible to do so, according to the suit. The plaintiffs also seek injunctive relief prohibiting the approval of new oil and gas wells until DOGGR complies with its legal requirements to evaluate and mitigate the public health and environmental impacts caused by fracking at oil and gas wells.

During an Oct. 16 press teleconference announcing the lawsuit, Jim Metropulos of the Sierra Club said the groups ultimately want DOGGR to draft a programmatic environmental impact review for each oil field or a certain area where fracking will occur, analyze baseline environmental conditions of the area, how mitigation could be carried out, and require drillers to monitor and report on fracking operation details, including the chemicals used in the process.

Spokespeople for DOC and the oil industry did not respond to requests for comment.

## **Pennsylvania Rejects EPA Concerns Over Drilling Aggregation Guidance**

Inside EPA Posted: October 16, 2012

Pennsylvania is rejecting EPA's concerns that the state's contested guidance for how to aggregate, or combine, drilling

emissions for Clean Air Act permitting purposes violates federal law by establishing a first-time quarter-mile distance threshold for triggering aggregation, and the state has finalized the guidance despite the concerns.

The push-back is the latest clash between the state and EPA over aggregation, a fight that environmentalists say highlights how some states are weakening aggregation tests to make it less likely that disparate oil and gas drilling operations will have to be aggregated. Industry generally prefers to avoid aggregating emissions as it could push the combined facilities' emissions over the threshold for requiring a stringent "major" source air permit.

Pennsylvania Oct. 5 finalized the interim guidance it released last fall, and made it effective Oct. 6 although it has been implementing the interim guidance for almost all of the past year. Along with the final document, which clarifies and makes technical corrections to the original, the state responded to 366 public comments including those from EPA.

EPA Region III had raised concerns that the guide's distance threshold violates federal law and Pennsylvania's state implementation plan (SIP) -- a blueprint for complying with agency air standards -- by setting the quarter-mile test, which is not included in EPA's guidance on how to aggregate facilities for air permitting.

EPA says the test undermines the agency's policy on whether distance between operations justifies aggregating them because it would be less likely to aggregate equipment spaced more than a quarter-mile apart.

But in the response to comments, Pennsylvania's Department of Environmental Protection (DEP) says it is not obligated to follow the agency's approach detailed in a memo issued in 2009 by EPA air chief Gina McCarthy. DEP says the non-binding guidance is "instructive . . . but not dispositive" on the state's aggregation policy.

The McCarthy memo rescinded a 2007 guidance issued by Bush-era acting air chief William Wehrum, and reinstated a long-standing three-pronged test for determining when permit writers should aggregate sources to determine whether they need stringing major source permits. The prongs include that the equipment is under common control, that it belongs to the same industrial grouping, and that it is contiguous or adjacent.

EPA in its comments last year on DEP's guide said it added "qualifiers" to aggregation determinations "that conflict with federal law" and the SIP. "Consistent with the McCarthy memo, the region plans to 'continue to review and comment on source determinations to assure that permitting authorities conduct fully reasoned source determinations that remain consistent with existing regulatory requirements and historical permitting practice.'"

DEP in its new response says it believes the guidance "is consistent with all federal and state regulatory requirements." DEP in its response to comments also told EPA that it developed the guidance "because the McCarthy memo retracts previously clear guidance that applied to the oil and gas industry," referring to the Wehrum memo that was seen as loosening EPA's long-standing aggregation policy to the benefit of industry.

According to the state, the DEP guidance document "is not a regulation and therefore cannot create or extrapolate new regulatory definitions. Neither Pennsylvania nor federal regulations define the terms 'contiguous' or 'adjacent' or place any definitive restrictions on how distant two emission units can be and still be considered located on contiguous or adjacent properties for the purposes of a single source determination."

Further, DEP rejects EPA's concern over the guidance's emphasis on proximity of facilities over whether they are contiguous and adjacent. "In fact, by making proximity the only dispositive factor to be considered in determining whether sources are adjacent or contiguous, the interim guidance appears contrary to federal law and the legal and regulatory requirements of the [prevention of significant deterioration] program," EPA had said. But DEP disagrees that proximity is the only factor despite its quarter-mile test, over which EPA has also objected.

#### Environmentalists Challenge State

Environmentalists are pursuing several challenges to what they see as Pennsylvania's approach favoring industry through aggregation. For example, they are appealing through the state administrative process a DEP decision to aggregate two refineries located 17 miles apart they say allows one of the facilities to meet air pollution limits by using credit for emission cuts at the second refinery, which is slated to close.

Additionally, environmentalists say that they will soon sue EPA to seek to force it to act on a petition they submitted to the agency early this year asking it to reject the Pennsylvania SIP and sanction the state over the aggregation guidance.

But DEP Secretary Mike Krancer is strongly defending the guidance, calling it "a common-sense approach to air aggregation" in an Oct. 5 statement. "Recently, the U.S. Environmental Protection Agency's misuse of the aggregation test for natural gas exploration, extraction and production earned the EPA a sharply worded rebuke" from the U.S. Court

of Appeals for the 6th Circuit, Krancer said, referencing a decision in *Summit Petroleum v. EPA*.

In that suit, the court scrapped EPA's "adjacency" definition for determining when to aggregate emissions as a single source subject to strict Clean Air Act permits, a move seen as emboldening state efforts to pursue aggregation policies based on a "proximate" distance test that activists warn would capture fewer facilities than EPA's approach. The agency has until Oct. 22 to decide whether to appeal the court's 2-1 ruling against the definition.

Krancer added in the statement, "The Summit Petroleum court's decision characterized EPA's interpretation as 'unreasonable' and 'inconsistent' with the regulatory history that established the regulatory test." And he said Pennsylvania has "a lengthy and successful history of regulating the oil and gas industry."

DEP in its response to comments also rejects concerns raised by environmentalists, including that the policy would harm human health because it is seen as favoring minor source permits for equipment that is spaced more than a quarter-mile apart. "The Department believes that the revised guidance document is protective of public health and welfare, and allows for the development of the natural gas industry in a safe and effective manner," the response says.

DEP says it will continue to make all aggregation determinations on a case-by-case basis. -- Dawn Reeves (dreeves@iwpnews.com)

Lawsuit Seeks to Force Impact Analyses Before Fracking for Oil, Gas in California  
BNA Snapshot BNA Daily Environment Report

(Center for Biological Diversity v. California Department of Conservation, Cal. Super. Ct., docket number unavailable, 10/16/12)

**Key Provision:** Four groups say environmental impact analyses are needed for oil and gas fields involving fracking.

**Potential Impact:** The litigation may require much more environmental analysis by the state agency for oil and gas field development.

**What's Next: The state has yet to respond to the lawsuit but is working on regulations governing fracking.**  
By Alan Kovski BNA Daily Environment Report

Four environmental advocacy groups filed a lawsuit Oct. 16 to force a California state regulator to conduct environmental impact analyses for oil and gas fields before hydraulic fracturing occurs (Center for Biological Diversity v. California Department of Conservation, Cal. Super. Ct., docket number unavailable, 10/16/12).

The groups said the California Division of Oil, Gas, and Geothermal Resources (DOGGR), a part of the California Department of Conservation, has been violating the California Environmental Quality Act (CEQA) by issuing permits for oil and gas drilling without analyses of the risks posed by fracturing, or fracking.

"In particular, DOGGR's practice of approving permits for oil and gas wells after exempting such projects from environmental review or otherwise issuing boilerplate negative declarations finding no significant impacts from these activities undermines the fundamental review requirements of CEQA," the complaint said.

The lawsuit was filed in Alameda County Superior Court by the Center for Biological Diversity, Earthworks, the Environmental Working Group, and the Sierra Club.

The groups sought a declaration that the agency was violating the California Environmental Quality Act and a prohibition on approvals of new oil and gas wells until the agency complies with "its legal requirements to evaluate and mitigate the significant environmental and public health impacts caused by hydraulic fracturing at oil and gas wells."

**State Regulations Being Prepared**

The regulator has requirements for oil and gas drilling that implicitly include fracturing but without explicitly addressing the practice or tailoring any rules to it. The California Division of Oil, Gas, and Geothermal Resources is preparing to issue regulations specifically to govern fracturing, but the draft requirements are not expected to be issued until sometime this fall (181 DEN A-11, 9/19/12).

Fracturing forces water, sand, and chemical additives into geologic layers to create cracks through which hydrocarbons can flow.

"California's regulations do not require notification to the Division when hydraulic fracturing occurs," the agency says on its

website in explaining its regulatory plan on fracturing. "There is a gap between the requirements placed on oil and gas operators to safely construct and maintain their wells, and the information they provide to the Division about hydraulic fracturing operations and steps taken to protect resources and the environment. The Department's pending regulatory process is intended to close that gap."

A spokesman for the department said later Oct. 16 the department has not yet been formally served with the lawsuit and was holding off on comment until that occurred.

#### Agency Accused of Rubber Stamping

The environmental activists want better analyses, not just more information. The exemptions from analysis and the findings of no significant impact have amounted to "rubber stamps" of permit applications, Earthjustice attorney George Torgun said during a telephone news conference announcing the litigation. Earthjustice is representing the groups in court.

The agency should issue programmatic environmental impact reports for each field or specific area and require appropriate risk mitigation measures, Torgun said.

During the spring and summer, the state agency held seven workshops to help gather information in preparation for its rulemaking. Members of the litigating environmental groups said during the news conference that they do not know the details of the regulations being drafted.

In any case, the planned regulations do not address what is going on, Jim Metropulos of the Sierra Club said.

#### For More Information

The lawsuit by four environmental groups against the California Department of Conservation over hydraulic fracturing is available at [http://earthjustice.org/sites/default/files/CA\\_Fracking\\_Complaint.pdf](http://earthjustice.org/sites/default/files/CA_Fracking_Complaint.pdf).

#### **State Pesticide Officials Question EPA On Use of Biocides in Fracking Fluid**

BNA Snapshot BNA Daily Environment Report

#### Use of Biocides in Hydraulic Fracturing

Key Development: State pesticide officials ask EPA to clarify the registration status of biocides used in hydraulic fracturing fluid.

What's Next: Pesticide officials' group to discuss use of biocides in fracking during March 2013 annual meeting.  
By Patrick Ambrosio

An association of state pesticide regulators has asked the Environmental Protection Agency to clarify some regulatory issues related to the use of biocides in hydraulic fracturing in oil and natural gas wells, according to an association official.

Jeff Comstock, president-elect of the Association of American Pesticide Control Officials (AAPCO), said association members have asked EPA's Antimicrobials Division to establish if the existing registration eligibility documents for biocides address use of the compounds in hydraulic fracturing fluid. Comstock spoke Oct. 15 at a meeting of the Environmental Quality Issues Working Committee of the State-FIFRA Issues Research and Evaluation Group (SFIREG).

Comstock said he became aware of the issue when reading EPA's plan for a study on the impact of hydraulic fracturing on drinking water, which featured a list of compounds commonly used in fluid for hydraulic fracturing, also known as fracking. Several of those common ingredients, including acrolein, dazomet, and glutaraldehyde, are listed as biocides in that report.

Some of the compounds listed as biocides in the EPA document are not found in any registered or labeled pesticide products, according to Comstock.

Biocides are commonly used in hydraulic fracturing fluid to control bacterial growth, according to FracFocus, a site created as a hydraulic fracturing chemical registry.

Hydraulic Fracturing Facts, a website operated by Chesapeake Energy, lists antibacterial agents as additives that are used to eliminate bacteria that produce corrosive by-products. "A small amount" of the antibacterial compounds returns in the produced water, which is water in underground formations that is brought to the surface along with oil or natural gas, according to the website.

Comstock said these uses constitute a "pesticide use application" under the Federal Insecticide, Fungicide, and

Rodenticide Act. He said AAPCO has asked EPA whether drilling companies are mixing industrial grade compounds into fracking fluid to serve as a biocide "without being technically labeled for a pesticide use pattern" or if they are using labeled pesticide products to serve as biocides.

Jim Roelofs, a senior environmental protection specialist in the Field and External Affairs Division of the Office of Pesticide Programs, said he was not familiar with the issue when questioned by members of the SFIREG working committee.

#### Concern About Mixing, Disposal of Fluid

Comstock said he is "not so concerned" about the possibility of biocides entering the groundwater because the compounds are used in "very low concentrations" in hydraulic fracturing fluid.

The greater potential impact is at the surface, where the fluid is mixed and loaded and where the produced water is stored and disposed, according to Comstock.

"If there is any impact on water quality issues, they would be related to use patterns at the surface," he said.

Comstock said he made the presentation to increase the level of awareness among the state pesticide officials who sit on the SFIREG working committee.

The American Petroleum Institute and America's Natural Gas Alliance, each of which represent members of the energy development industry, did not respond to requests for comment on the use of biocides in hydraulic fracturing fluid. A spokesman for the Natural Gas Alliance referred BNA to general information on the chemicals used in the hydraulic fracturing process.

#### EPA Staff Invited to Speak at Spring Meeting

AAPCO will discuss the use of biocides in hydraulic fracturing during its annual meeting, scheduled to take place March 18-20 in Arlington, Va.

Comstock said AAPCO is attempting to have staff from the Antimicrobial Division and EPA's Office of General Counsel speak at that meeting. The Office of General Counsel official would be asked to provide an overview of how the Energy Policy Act of 2005 intersects with EPA's regulatory authority under FIFRA, he said.

That law exempts hydraulic fracturing from portions of several environmental laws, including the Safe Drinking Water Act. The 2005 energy law does not include any exemptions from FIFRA, according to Comstock.

#### For More Information

EPA's list of common hydraulic fracturing fluid ingredients is available under Appendix E at [http://www.epa.gov/hfstudy/HF\\_Study\\_\\_Plan\\_110211\\_FINAL\\_508.pdf](http://www.epa.gov/hfstudy/HF_Study__Plan_110211_FINAL_508.pdf).

#### Conservation groups sue Calif agency over fracking

Associated Press State Wire: California (CA) - Wednesday, October 17, 2012

OAKLAND, Calif. (AP) — Conservation groups are suing California's oil and gas drilling regulators over hydraulic fracturing , charging officials with failing to properly study the practice's environmental impacts.

The lawsuit filed Tuesday in Alameda County Superior Court charges the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, also known as DOGGR, with failing to adequately monitor possible pollution caused by hydraulic fracturing , or " fracking ."

Fracking is the practice of shooting water and chemicals at high pressure into underground rock formations to release oil or gas to the surface.

California currently does not distinguish fracking from other industry techniques to recover oil and gas.

The Sierra Club, Center for Biological Diversity and other groups sued to force the state to conduct environmental reviews before permitting fracking projects.

California Department of Conservation spokesman Ed Wilson declined to comment on the suit, saying the department does not comment on pending litigation.

#### Celebrities, Business Leaders and Non-profits Unite to Demand A Frack-Free Colorado

Targeted News Service (USA) - Wednesday, October 17, 2012

DENVER, Colo., Oct. 16 -- Food & Water Watch issued the following news release:

A rapidly growing list of business and environmental leaders, non-profits and entertainers are joining forces to fight against hydraulic fracturing , or " fracking " in Colorado. On October 23, at Civic Park on Capitol Hill in Denver, a coalition called "Frack Free Colorado" will draw attention to the dangers of fracking and call for a concrete plan to move the state of Colorado away from natural gas and other dirty extractive industries and toward a renewable energy economy.

"As Coloradans, we feel that it's imperative to assess the environmental and health impacts of the fracking process," says Allison Wolff, CEO of Vibrant Planet and co-organizer of Frack Free CO. "The collective goal of everyone involved in Frack Free Colorado is to open up a dialogue regarding the effects of fracking on our communities, families and environment. We want to educate the public on the dangers of this process and accelerate clean energy alternatives."

Hydraulic fracturing , or fracking , is a technique used to extract gas and oil from rocks that are 2,000 to 10,000 feet below the earth's surface. Deep wells are drilled through the aquifer to reach shale rock formations and then millions of gallons of chemicals, sand and water are injected at high pressure into the soft, sedimentary rock, breaking it apart and releasing stores of methane and oil. The natural gas industry enjoys special exemption from The Safe Drinking Water Act, The Clean Water Act, The Clean Air Act, , and the National Environmental Policy Act for this dangerous fracking process. A single fracked well requires an access road, 2-8 million gallons of fresh water, between 10,000 and 40,000 gallons of chemicals, many of them known carcinogens and endocrine disrupters, and at least 1,000 diesel truck trips. There are over 45,000 fracked wells in Colorado, with plans to triple that number in the next decade. The enduring effects of fracking are unknown.

The Frack Free Colorado event on October 23rd, is modeled after the successful New York event "Songs Against Drilling" earlier this year blending education with entertainment as celebrities and experts take the stage to voice their concerns about fracking and celebrate our opportunity to move to renewable energy today. Celebrities in attendance will include Daryl Hannah, Mariel Hemingway and Leilani Munter (car racing's Carbon Free Girl). Jakob Dylan and Rami Jaffee of the Wallflowers and Colorado band, Elephant Revival will perform along with other to be announced musicians. Fracking experts like acclaimed ecologist and author Sandra Steingraber and Sam Schabacker from Food & Water Watch will help educate the public about fracking .

"The natural gas industry, which has been mistakenly touted as a clean energy provider, is polluting our rivers, aquifers, wildlife and citizens," explains Tara Sheahan, Founder of Global Conscious Leadership. "In addition, oil and gas companies estimate that they will use approximately 6.5 billion gallons of water in Colorado this year. Our state does not have enough water to support this growing industry. Frack Free Colorado's goal is to help people take action to lessen their dependence on natural gas and move everything from their consumer spending to investments to businesses that support a sustainable future--we need to start living like First Nation people who view the earth as a relative versus a resource to exploit. Post event, we are organizing a number of meetings with leaders across government, business, and nonprofit sectors to design a plan for speeding Colorado's economy toward one based on renewable energy and sustainable food systems."

Yvon Chouinard, the founder of Patagonia, explains, "clean water is the most important element on the planet. According to environmental futurists such as Lester Brown, we will run out of water well before we run out of oil or topsoil. Hydraulic fracturing is a process that further accelerates the decline of our clean water supplies."

Frack Free Colorado is sponsored by Patagonia, Prana, Black Diamond, New Belgium Brewing Company, Backpacker's Pantry, Vibrant Planet, Conscious Global Leadership, The Invisible Spark, 1% for the Planet and Backbone Media. The event's co-organizers include actor Mark Ruffalo's Water Defense, Food & Water Watch, Clean Water Action, CREDO, Sierra Club, etown, Fractivist, Rock the Earth, East Boulder County United, Wilderness Workshop, Erie Rising, The Mothers Project, Adams County Unite Now, Boulder County Citizens for Community Rights, Our Health Our Future Our Longmont and What the Frack?! Arapahoe.

For more information, visit [www.frackfreeco.com](http://www.frackfreeco.com) on Facebook at [www.facebook.com/frackfreeco](https://www.facebook.com/frackfreeco) and Twitter @FrackFreeCo.

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### **Committee Members Call for Balance and Transparency in Review of EPA Fracking Study**

Targeted News Service (USA) - Wednesday, October 17, 2012

WASHINGTON, Oct. 16 -- The House Science, Space and Technology Committee issued the following news release:

Science, Space, and Technology Committee Chairman Ralph Hall (R-TX) and Committee Members Rep. Dana Rohrabacher (R-CA) and Rep. Andy Harris (R-MD) today sent a letter <http://science.house.gov/letter-science-committee->

epa-administrator-jackson-october-16-2012 to Environmental Protection Agency (EPA) Administrator Lisa Jackson expressing concerns about transparency and balance in regards to an upcoming review of the Agency's study on hydraulic fracturing . The letter requests detailed information related to EPA's selection of scientific experts to serve on a Science Advisory Board (SAB) panel to review the Agency's study, titled, Progress Report: Potential Impacts of Hydraulic Fracturing on Drinking Water Resources, due out later this year.

The letter outlines concerns with previous panels that reviewed this study, in particular a 2010 SAB ad hoc panel that failed to include experts with applied technical experience in hydraulic fracturing , or adequate state, local, and tribal representation. The letter calls on the Agency to "consider balance, expertise, independence, and public participation requirements" in its selection of the 2012 panel, and articulates several concerns with the panel review process, including lack of stakeholder input and the appearance of a lack of impartiality.

"Given the importance of this study and the potential implications it could have for oil and gas production in the U.S., we urge EPA to ensure selection of a balanced panel with relevant technical expertise, and one that does not unnecessarily exclude nominees with relevant (and, in fact, essential) industry experience," the letter states.

Further, the Members stress that exclusion of panelists with industry experience "runs counter to the SAB's own guidance document" and ask the Agency to outline what steps will be taken to "ensure that persons with technical expertise and operation experience in hydraulic fracturing will be included on the 2012 panel." The letter requests EPA provide information explaining how the Agency determines whether or not potential reviewers have predetermined opinions about the subject under review, and what criteria the Agency uses to assess impartiality. The letter further requests EPA provide a timeframe for the release of the final report and to clarify whether or not the review of the progress report will occur prior to its public release.

Last month, Chairman Hall and Committee members introduced <http://science.house.gov/press-release/committee-republicans-introduce-bill-reform-epa%E2%80%99s-scientific-advisory-process> legislation to reform the EPA's SAB and its sub-panels. The bill, H.R. 6564, <http://science.house.gov/bill/hr-6564> would strengthen public participation, improve the process for selecting expert advisors, expand transparency requirements, and limit non-scientific policy advice.

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#### **Anti- fracking advocates protest**

Wyoming County Press Examiner (PA) - Wednesday, October 17, 2012

Author: wceditor BY ELIZABETH SKRAPITS Times-Shamrock Writer

MONROE TWP. – People opposed to fracking for natural gas protested Monday against the infrastructure used to bring the gas to market.

About two dozen people from as far away as Ithaca, N.Y., and Bloomsburg gathered in front of PVR Partners' natural gas dehydration station on Route 309 across from the former Beaumont Inn. Rebecca Roter of Brooklyn Township, Susquehanna County, organized the rally as part of national "Occupy the Pipeline" day.

"This is basically a general protest," said Joanne Fiorito of Tunkhannock. She sported a skull mask with "Dimock, Leroy, Lenox" – three sites allegedly contaminated by natural gas drilling – written on it.

PVR spokesman Stephen R. Milbourne said the protestors have the right to assemble and speak their minds, as long as they don't trespass.

"People have the right to express their opinions," he said. "We ask that they confine it to public property and not trespass on our property or our neighbors' property."

The protesters did, sticking to the roadside in front of the dehydration station, which removes liquids from natural gas and adds odorant to it before the gas continues to Dallas Township and into a connection with the Transco interstate pipeline.

Pipelines, compressor stations and natural gas dehydration stations have nothing to do directly with well-drilling and hydraulic fracturing or " fracking ," which involves blasting millions of gallons of chemical-treated water deep underground to open cracks in the shale and release the gas.

The protesters are aware of it, but they wanted to point out that natural gas support equipment is part of the overall picture, and that it can pollute the environment.

"Even though they're not drilling, we still have this stuff," Hunlock Creek resident Michele Thomas said, pointing at the

dehydration station. "Everyone is affected by it (drilling). No one is exempt."

Protesters chose the site because, on the morning of Sept. 30, a loud noise from the station scared neighbors and animals.

"There was something that depressurized that made a lot of noise, from what I understand," he said.

The safety equipment had something along the lines of a loose wire, Milbourne said. There was no safety issue, but because the equipment couldn't verify everything was safe, it shut the system down, he said.

"It's engineered purposely that way to ensure there's not a problem," Milbourne said.

He said PVR is working on the system.

Protester Jo Anne Cipolla-Dennis of Dryden, N.Y. said she came to help her friends because there's a pipeline – the Constitution – in the works to bring gas from Susquehanna County through upstate New York.

"They call one of these lines the Constitution Pipeline," she said. "That's a slap in the face to every American who knows what these pipelines are doing to our country."

Hilary Acton of Ithaca, N.Y., said she comes to the region to educate herself on the full spectrum of natural gas infrastructure, and how it impacts the environment, including air and watersheds.

"Water and air do not abide by state boundary lines," she said. "They flow, they travel."

Dr. Al Rodriguez of Dallas Township, president of the Gas Drilling Awareness Coalition, stopped by despite being on call. He said the goal is to try to mitigate a little of the exploitative nature of the industry.

"I can't understand how an area that got ravaged with coal would let it happen again," he said.

Rodriguez's concern is the "impact on us and the health of our children," such as coal mining had. There are no long-term studies, he said.

Bloomsburg University professor Wendy Lee, who writes about natural gas issues for media site Raging Chicken Press said she came because, among other reasons, Columbia County is just beginning to significant natural gas activity.

Ray Kemble of Dimock Township knows firsthand about what natural gas drilling can do, and has test results on his water well to prove it. His drinking water contains an assortment of chemicals from arsenic to four grades of uranium, according to the tests. But the state won't acknowledge there's a problem, he said.

"We're just crazy now in Dimock," Kemble said. "We're just nuts."

Caption: Rebecca Roter, rally organizer, left, and Kim Krupsha of the Luzerne County Citizens for Clean Air protest outside PVR Partners' natural gas dehydration station in Monroe Township on Monday. TIMES-SHAMROCK PHOTO/ERIC SEIDLE

## **Pa. Supreme Court hears Marcellus Shale case**

Associated Press State Wire: Oklahoma (OK) - Tuesday, October 16, 2012

Author: KEVIN BEGOS Associated Press

PITTSBURGH (AP) — Pennsylvania's Supreme Court heard arguments Tuesday in a natural gas case that could create chaos for major energy companies and thousands of leaseholders. But the questions from the justices suggested they may be reluctant to cause such disruptions by significantly modifying existing law.

The case concerns an 1881 property deed and established Pennsylvania law that defines minerals as only metallic substances such as gold, silver and iron. In the deed, a man named Charles Powers sold property in Susquehanna County but retained the rights to 50 percent of the "minerals and petroleum oils."

The Powers estate claims that the reference to "minerals" in the old deed gives them part ownership of the natural gas locked in the Marcellus Shale under the property. The estate challenged the natural gas and mineral rights of the property's current owner. Lower courts disagreed about the issue.

The Marcellus is a formation that lies deep under much of Pennsylvania, West Virginia, New York and Ohio. In 1881 the technology didn't exist to extract gas from the shale, but recent advances have made that possible.



The stakes in the case are enormous. In the last four years, the Marcellus Shale has gone from virtually no output to become the most productive natural gas field in the United States. Wholesale revenues from production this year are projected to be in the range of \$6 billion to \$8 billion, depending on market prices. Landowners get hundreds of millions of dollars in royalty payments out of that total.

If the Supreme Court agrees with the Powers estate, thousands of recent gas drilling leases could be questioned or overturned. But Justice Max Baer noted the 1881 deed could have asked to keep natural gas rights — and it didn't.

"Why did they include oil, and why did they not include gas?" in the deed, Baer asked.

Lawrence Kelly, an attorney representing the Powers estate, said the natural gas is literally a part of the Marcellus Shale.

"If you own the duck, you own the feathers," Kelly said.

But Baer noted that natural gas isn't stationary, and can actually move through rocks and out into the atmosphere.

Justice Debra McCloskey Todd added that the estate's argument departs from Pennsylvania's long-established definition of a mineral.

Gregory Krock, who represents the family that now owns the property, said the case is just about what "ordinary people" meant in the 1881 deed.

"Ordinary people do not use 'mineral' in the same sense a geologist does," Krock said.

The shale gas is extracted using a process called hydraulic fracturing . Large volumes of water, along with sand and hazardous chemicals, are injected deep underground to break rock apart and free the oil and gas.

It's not known when the court will issue a final ruling in the case.

#### **Airport negotiates agreement over fracturing pond**

Midland Reporter-Telegram (TX) - Tuesday, October 16, 2012

Author: Sara Higgins Midland Reporter-Telegram

Midland International Airport officials are working with a neighboring oil company to rectify what director Marv Esterly called a "pretty big 'oops.'"

Esterly discovered this summer that Windsor Energy had built and invested about \$200,000 in a large fracturing pond near the end of a runway on the west side of the property, unbeknownst to officials.

The company started building the pond, which stores water for hydraulic fracturing , near the outside of a fence line that representatives from both organizations assumed was the edge of the airport's property line, Esterly said. An agreement made in the 1960s with the original landowners stated that the airport would not move the fence in order to allow the owners' cattle to continue grazing on the land, he said.

"Obviously it was a very honest mistake and we're not pointing any fingers," Esterly said at the Permian Basin Regional Airport Planning and Development Board meeting Tuesday. "Everybody's apologetic, including us."

The mistake was brought to Esterly's attention by the airport's facility manager, who assumed the pond had been built on Windsor's land and made a joke about fishing in the new "lake" that had popped up near the end of the runway. Since the discovery, he has taken employees on a tour to familiarize them with the about 200 acres that are outside the actual airport.

"Our employees didn't really know, and I take full responsibility for that," he said.

One concern Esterly shared at the meeting was the possible future need to expand an existing runway after XCOR Aerospace moves its headquarters to Midland.

There is an advantage to having the fracturing pond on the airport's property, Esterly said. If the oil company had built the pond on its own land, the airport would not have the ability to control and mitigate wildlife issues associated with the new water source. The airport received approval last week from the Federal Aviation Administration to mitigate wildlife hazards while accommodating the fracturing pond. The airport will need to install a chain link fence and bird deterrents around the area, Esterly said.

The pond also will provide a revenue stream for the airport, although it's unknown how much until as the two entities continue to work on an agreement. Airport officials expect to collect funds from water pumped from the two wells built on airport property and through a rate and damage schedule adopted from University Lands.

"There's definitely a revenue stream here for us that helps us in the long run," he said.

Esterly estimated that the agreement would be for five years with an optional five-year renewal, and expected to reach an agreement in the next few weeks that will need to be brought in front of the City Council for right-of-way approval. Though it looks like a win-win situation for the time being, Esterly said the predicament has been a learning experience for airport staff.

"We're just going to make sure it's not going to happen again," he said.

In other business:

-- Plans continue for the addition of 200 remote, covered parking spaces at the airport.

Parkhill, Smith & Cooper is currently putting together designs for a possible new lot, which most likely would feature fabric covers that have a life span of about 20 years, Esterly said.

Airport records show that an average of 73 percent of the 294 covered spaces are occupied every day in its slow month of January, and 86 percent in its peak month of June, he said. The numbers do not account for short-term parking less than one full day. Esterly said airport staff will recommend charging \$8 a day for the new, covered spaces and raising the fee of the closer-in covered spots from \$8 to \$12. Estimates from airport officials show that the airport could create an additional revenue of \$304,410 annually and have the ability to pay off the new lot within five years.

The plans will likely go in front of City Council in November, when council members will be able to approve funding for the project's design.

Parking revenues in June hit an all-time high of \$237,000. In September, fiscal year-to-date parking revenues after sales taxes were 10.3 percent up over the previous fiscal year.

-- It was reported that enplanements for the fiscal year through September are up 5.2 percent compared with the previous year, despite the number of seats available in the market having declined by 2.6 percent. Esterly projected there would be 500,000 enplanements by the end of the calendar year, easily surpassing those at Preston Smith International Airport at Lubbock.

-- A report was given on the construction continues around the airport. Contractors should have the final phase of executive apron reconstruction in the next 30 days. Construction also has begun on two of the hangars in the Northwest Taxiway Extension Project, which is expected to bring eight new hangars to the airport.

### **Richfield Rejects Moratorium on Industrial Land Use**

Observer-Dispatch (Utica, NY) - Tuesday, October 16, 2012

Author: Amanda Fries, mfries@uticaod.com

**RICHFIELD SPRINGS** - Many were far from pleased Monday after the Town Board rejected a proposed industrial land-use moratorium.

The Richfield Town Board voted 3-2 opposing the 10-month moratorium on all applications, or proceedings for applications, and issuance of approvals or permits for industrial use of land.

The moratorium specifically pointed to hydraulic fracturing, electric transmission lines, landfills and electric power generation facilities from any source, including wind energy.

Some people at the meeting at Richfield Springs Central School stormed out of the cafeteria upset with the decision. State troopers were called in as a precaution.

"It'd be nice to try democracy every once in awhile," resident Dan Sullivan said. "The citizens of the town would actually have input."

The moratorium also would've stipulated that a seven-person committee be formed, consisting of town residents who "have knowledge relevant to the purpose stated in this local law,"

Several residents took issue with this phrase as well as other wording in the moratorium, which is one of the reasons behind Town Board member Mary Margaret Snyder's vote.

"I'm not opposed to the whole moratorium" she said. "We have to be careful of what we put in place. You can't just ban everything."

Snyder said the language was ambiguous and opposed another committee to be formed to make decisions.

"I just felt that it was another layer of government," she said.

Meanwhile, residents didn't see the harm in putting into a place a 10-month moratorium that would offer a breather for the board as well as the town.

"We don't know where our elected officials are coming from," resident Carol Frigault told the board. "Don't throw this out and just not consider doing this."

Town Supervisor Francis Enjem said board members will go back and try to reword the moratorium to satisfy some of the concerns they had.

### **DRILLING ALLIES GETTING ANTSY**

Times Union, The (Albany, NY) - Tuesday, October 16, 2012

Author: RICK KARLIN

ALBANY -- A critical deadline in the debate over hydrofracking in New York is less than two months away, but participants in Monday's pro-drilling rally said they've already waited too long.

"I'm as frustrated as all of you," state Sen. Thomas O'Mara told hundreds of pro- fracking demonstrators gathered in West Capitol Park on Monday.

"This process should not be lengthened," said the Chemung County Republican.

In many respects, Monday's march mirrored an anti- fracking demonstration in August: There were busloads of protesters, a kickoff rally at the Corning Preserve on the Hudson River, followed by a march up State Street toward the Capitol.

But while anti-frackers said they feared the pollution and other environmental problems that could stem from the controversial natural gas drilling technique, supporters said New York was in danger of losing an opportunity for thousands of jobs and economic development in a hard-pressed area of the state.

Many of the participants wore T-shirts emblazoned with "Jobs" on the front.

Douglas Lee, one of the organizers of the rally and the owner of a vacation home in Sullivan County, said he recently drove through the Southern Tier, where the most accessible gas deposits are believed to be located.

"All I saw was dilapidated houses, farm houses falling down ... able-bodied men without jobs," Lee said.

Monday's rally came as the state Department of Environmental Conservation approaches a Nov. 29 deadline for issuing regulations for hydrofracking . If that deadline passes without an extension, the public comment period could be reopened, which could easily move back by several months any final approval for hydrofracking .

DEC officials have reportedly said they may miss that deadline in order to allow the state Department of Health to review its analysis of hydrofracking 's potential effects on health.

Another deadline, at least in the unofficial sense, is Jan. 1 -- when the Legislature returns.

Going past then could further complicate matters, said Sen. Tom Libous, a Binghamton Republican who's one of the major proponents of fracking .

Libous wants to see the DEC and the Cuomo administration act before the end of the year, and believes the Health Department has already done enough work on fracking to make that happen.

"I think they know what the health assessment is," he said Monday in an interview. "It's been four years in the making. ... I think the studies are done. I think it's just a matter of making a decision, to moving forward." Members of the Democratic-

dominated Assembly last year began raising concerns over what they believed was a plan by Gov. Andrew Cuomo to eventually allow hydrofracking . Assembly members could make things difficult during the session, perhaps by linking fracking to other issues that are important to the governor.

"Any decision on hydraulic fracturing will be determined by the science and the facts," Cuomo spokesman Richard Azzopardi said in a statement.

Hydrofracking allows producers to extract gas from shale using a combination of water, sand and chemicals under pressure. Environmentalists fear a range of potential negative consequences, from fouled water supplies to degraded roadways from increased truck use.

Others pointed to the economic boom that has commenced across the border in Pennsylvania, where hydrofracking has been going on for years. "You really need to go down and look at it," said Don Zaengle, a geologist from Otsego County who travels 90 miles to Pennsylvania for work.

Libous argued that many of the celebrities who oppose hydrofracking lack a real connection to upstate.

"Stay in Hollywood," he said. "We don't want to hear it here."

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Inside A3 Chinese immigrants join rally for hydrofracking . Online photo gallery at <http://timesunion.com>  
Caption: Lori Van Buren/Times Union Hyrdofracking supporters march to the Capitol after a rally Monday at the Corning Preserve in Albany. The state Department of Environmental Conservation is approaching a Nov. 29 deadline for issuing regulations for hydrofracking . --- photos by Lori Van Buren/Times Union Connie Lull of Schenevus speaks to a crowd of hydrofracking supporters at the Corning Preserve on Monday. "Any decision on hydraulic fracturing will be determined by the science and the facts," Cuomo spokesman Richard Azzopardi said in a statement. Sen. Tom Libous wants the Cuomo administration to act before the end of the year. --- HyDROfracking supporters listen to the song "Amazing Grace" sung by the Long Island Chinese Choir during a rally at the Corning Preserve on Monday. Chinese immigrant and organizer of Monday's rally, Doug Lee, joined hundreds of fracking advocates that were bused to the rally.

#### **Set deadline for frack review**

Tonawanda News (NY) - Tuesday, October 16, 2012

Author: — The Poughkeepsie Journal, Poughkeepsie

Virtually since taking office, Gov. Andrew Cuomo has been clear there is no timetable for when state regulators must finish their review of the controversial hydrofracking process and determine if, when and how it can be used in New York.

Indeed, projected deadlines have come and gone. And there has been a moratorium in place even before Cuomo was elected in November 2010.

Whether to allow hydrofracking to proceed is a momentous decision; no one is denying the state the right to take the time that is necessary to get it right. But it has been 4 years and, sooner rather than later now, the state ought to come to a decision.

Hydrofracking involves injecting water, sand and chemicals deep into ground, smashing through rocks to get at natural gas deposits.

While the gas-drilling industry is eager to get started, the state Department of Environmental Conservation is still working on its determination of whether hydrofracking can be done safely in New York.

Based on its previous comments, the DEC will most likely allow the practice to occur on a limited scale, perhaps even through pilot programs that must be heavily monitored. Already, the state has determined that some sensitive areas — such as Syracuse and New York City watersheds, including parts of Ulster County — will be off limits to such drilling. But it should add to that list communities that, through its elected officials, have made it known they don't want the process used within their boundaries. Communities can help provide potential safeguards by including such language in their land-use codes — but the state still would have to abide by those wishes. Some communities already have taken such action and are defending their decisions in court.

Others might be inclined to embrace or at least accept hydrofracking , understanding that to this point both the DEC commissioner and the federal EPA administrator have gone on record saying they believe hydrofracking can be done without harmful impacts. And many landowners through the state's Southern Tier are more than willing to lease their mineral rights for gas drilling, realizing there is money to be made.

Natural gas drilling also has other benefits, including creating jobs, possibly lowering energy costs and making it easier for the United States to wean itself off imported oil. But it also is abundantly clear that drilling could ruin water supplies if not handled properly. There are many other health concerns, including how to effectively dispose of the chemical-filled wastewater created in the process.

DEC Commissioner Joseph Martens has been moving judiciously, including asking state Health Commissioner Nirav Shah to review the DEC's analysis and to appoint a panel of outside experts to advise him. The DEC was expected to release its determinations in November. It's possible that will be delayed now. Regardless of what the state decides, it most likely will be sued, one of the reasons Cuomo and others are defending the state's decision to let health regulators take a closer look at the potential effects of gas drilling.

"I think it will be a more thorough review and it will be a stronger review to withstand a legal challenge," the governor said.

### **British government warms to shale gas**

UPI International Intelligence - Tuesday, October 16, 2012

Author: UPI News Service

A British energy official said the government was warming to the development of shale natural gas but warned it won't be a panacea for cheaper energy.

British Energy Secretary Ed Davey told The Daily Telegraph newspaper the government is expected to give the nod to shale when it unveils plans for more gas-fired power plants in November.

We will make an announcement around the time of the gas strategy, he said.

The British Department of Energy and Climate Change suggested last week that any new hydraulic fracturing , or fracking , procedures should include small-scale operations followed by a monitoring stage to ensure safe development.

Cuadrilla Resources announced last year that it voluntarily halted shale gas extraction at a site in northwest England because of small tremors reported near its operations.

Davey warned, however, that shale gas won't be a silver bullet that will usher in an era of cheap energy for the country.

Shale gas in North America has misled people about the medium to long-term trends in gas prices, he said.

The minister last week said he makes no apology for exercising patience when it comes to shale natural gas reserves.

### **Anti- fracking advocates hold protest**

Citizen's Voice, The & Sunday Voice (Wilkes-Barre, PA) - Monday, October 15, 2012

Author: Elizabeth Skrapits (Staff Writer)

MONROE TWP. - People opposed to fracking for natural gas protested Monday against the infrastructure used to bring the gas to market.

About two dozen people from as far away as Ithaca, N.Y., and Bloomsburg gathered in front of PVR Partners' natural gas dehydration station on Route 309 across from the former Beaumont Inn. Rebecca Roter of Brooklyn Township, Susquehanna County, organized the rally as part of national "Occupy the Pipeline" day.

"This is basically a general protest," said Joanne Fiorito of Tunkhannock. She sported a skull mask with "Dimock, Leroy, Lenox" - three sites allegedly contaminated by natural gas drilling - written on it.

PVR spokesman Stephen R. Milbourne said the protestors have the right to assemble and speak their minds, as long as they don't trespass.

"People have the right to express their opinions," he said. "We ask that they confine it to public property and not trespass on our property or our neighbors' property."

The protesters did, sticking to the roadside in front of the dehydration station, which removes liquids from natural gas and adds odorant to it before the gas continues to Dallas Township and into a connection with the Transco interstate pipeline.

Pipelines, compressor stations and natural gas dehydration stations have nothing to do directly with well-drilling and hydraulic fracturing or " fracking ," which involves blasting millions of gallons of chemical-treated water deep underground to open cracks in the shale and release the gas.

The protesters are aware of it, but they wanted to point out that natural gas support equipment is part of the overall picture, and that it can pollute the environment.

"Even though they're not drilling, we still have this stuff," Hunlock Creek resident Michele Thomas said, pointing at the dehydration station. "Everyone is affected by it (drilling). No one is exempt."

Protesters chose the site because, on the morning of Sept. 30, a loud noise from the station scared neighbors and animals.

"There was something that depressurized that made a lot of noise, from what I understand," he said.

The safety equipment had something along the lines of a loose wire, Milbourne said. There was no safety issue, but because the equipment couldn't verify everything was safe, it shut the system down, he said.

"It's engineered purposely that way to ensure there's not a problem," Milbourne said.

He said PVR is working on the system.

Protester Jo Anne Cipolla-Dennis of Dryden, N.Y. said she came to help her friends because there's a pipeline - the Constitution - in the works to bring gas from Susquehanna County through upstate New York.

"They call one of these lines the Constitution Pipeline," she said. "That's a slap in the face to every American who knows what these pipelines are doing to our country."

Hilary Acton of Ithaca, N.Y., said she comes to the region to educate herself on the full spectrum of natural gas infrastructure, and how it impacts the environment, including air and watersheds.

"Water and air do not abide by state boundary lines," she said. "They flow, they travel."

Dr. Al Rodriguez of Dallas Township, president of the Gas Drilling Awareness Coalition, stopped by despite being on call. He said the goal is to try to mitigate a little of the exploitative nature of the industry.

"I can't understand how an area that got ravaged with coal would let it happen again," he said.

Rodriguez's concern is the "impact on us and the health of our children," such as coal mining had. There are no long-term studies, he said.

Bloomsburg University professor Wendy Lee, who writes about natural gas issues for media site Raging Chicken Press said she came because, among other reasons, Columbia County is just beginning to see significant natural gas activity.

Ray Kemble of Dimock Township knows firsthand about what natural gas drilling can do, and has test results on his water well to prove it. His drinking water contains an assortment of chemicals from arsenic to four grades of uranium, according to the tests. But the state won't acknowledge there's a problem, he said.

"We're just crazy now in Dimock," Kemble said. "We're just nuts."

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### **Protecting our water - Fracking**

Las Vegas Optic (NM) - Sunday, October 14, 2012

Author: Optic Editorial Board

We're convinced that hydraulic fracturing, or fracking, just isn't feasible in San Miguel County. Water is a major component to this method of oil-and-gas drilling, and some undisclosed chemicals get mixed in to contaminate the water, so it ruins this most valuable of natural resources. For that reason alone, we can't imagine the county commissioners passing a toothless ordinance to regulate this method of extraction, and we expect that they won't.

Nevertheless, the oil-and-gas industry is interested in drilling here, and there's a process to consider the issue, so the commissioners are right to take their time and hear from all sides, then consider the issue with all due deliberation before passing the regulatory ordinance that everyone's waiting for.

We understand the frustration that some citizens have with the process. The fact that county staffers drafted an ordinance

that didn't address fracking is particularly disconcerting, since fracking is really the central issue. But they are correct in handing off that issue to the commissioners, who at the end of the day must decide what's best for the county and its residents.

The commission must balance the need to protect the county's water supply with constitutionally ground property rights. Extreme restrictions, such as those imposed by the city's unsigned-by-the-mayor community rights ordinance, are legally questionable at best and downright unconstitutional at worst, so it's understandable that commissioners don't want to go in that direction. Instead, at least some of them appear to be interested in reasonable restrictions, and we agree that is likely to be the most effective approach.

Let's be realistic: It's unlikely the county can ban all drilling that's likely to violate private property rights but it does seem legally defensible to place into the ordinance a provision that protects the water supply. There's an overwhelming amount of evidence that points to significant groundwater contamination due to fracking , so the county could impose a ban on the practice unless and until a record is established demonstrating otherwise.

We view it as a reasonable restriction to say that an industry can't come into a water-parched region and pollute its groundwater supply, and we think that would hold up in court. We encourage the commissioners to follow the input and deliberation process they've established to create the county's regulation, then to pass an ordinance that will protect, on no uncertain terms, the area's water supply.

### **Fracking Michigan - resource manufacturing**

Midland Daily News (MI) - Sunday, October 14, 2012

Author: Lee Smith

This is the fifth article in a series on fracking activity in Michigan, which continues to answer readers' questions.

In previous articles, I explained that the term fracking refers to applying pressure to hydraulically fracture the subsurface strata and injecting proppants (sand or ceramic material) carried with fluid (water and chemicals) into the cracks to keep them open. This fracturing increases extraction rates, thus enhancing the recovery of gas and oil.

Some of the fluid returns to the surface and is called flowback. This flowback contains chemicals put into the well to assist the fracking operation, chemicals from the formation itself, water used to frack and water from the fracked formation.

Modern high-volume fracking is done in well bores deviated from the vertical to the horizontal to contact the reservoir strata for a long distance.

What's new in Michigan since you launched these articles?

Encana established two records drilling the State Excelsior 3-25 HD1 well (3-25 Well) in Kalkaska County. This well set a total footage record for Michigan — 19,972 feet. The 3-25 Well was drilled to a vertical depth of approximately 9,000 feet , deviated from the vertical to the horizontal over several hundred feet, and then was drilled horizontally for approximately 10,300 feet. This horizontal length also set a Michigan record.

Another important first for Michigan is that the 3-25 Well was drilled by Ensign Energy's Rig 119, which has a "walking system." The "walking system" allows the rig to move from one location to another in 18- to 22-inch steps on four hydraulic feet. In the case of the 3-25 Well the rig had been walked 50 feet from the surface location of the previously drilled State Excelsior 2-25 HD 1 Well (2-25 Well). Both the 2-25 Well and the 3-25 Well are adjacent to the 1-25 Well previously profiled in the second of these articles.

Instead of using diesel fuel, Rig 119 used natural gas from the 1-25 Well to supply power for the drilling of the 2-25 and 3-25 Wells.

The oil and gas industry term for such clustering of well operations is called "drilling from a pad." Oil and gas companies refer to these operations as "resource manufacturing."

Pad drilling — where drilling and production are taking place simultaneously — more closely resembles operations from an offshore drilling and production platform than historical Michigan on-shore operations. Pad operations, like high-volume fracking , bear little resemblance to previous oil and gas operations in Michigan; this is a whole new manufacturing business for Michigan.

Thanks to high-volume fracking , other states mentioned in this series have had a significant boost to their economies. Does Michigan have a favorable business environment to encourage high volume fracking ?

Yes, Michigan offers fracking companies:

- low taxes
- light-handed regulation
- large supplies of free fresh water
- easy access to disposal wells

Ernst and Young compared the combined burden of state and local taxes on wells producing gas and natural gas liquids for the Ohio Business Round Table in May 2012:

- Pennsylvania – 9.7%
- North Dakota – 8.3%,
- Texas – 8.2%,
- Michigan 7.5%

The 1.2 percent difference between the average of other states' and Michigan's tax rate may not sound like much, but it is real money. Consider just one company, Encana, which claims to have 1,700 well locations to drill in Michigan's Utica / Collingwood Formation. Over the producing life of these 1,700 wells, Encana will pay an estimated \$340 million less in state and local taxes under current Michigan rates than under the average of the tax rates charged in the three other high-volume fracking states.

Production from reservoirs like the Utica / Collingwood typically produce a significant portion of their total ultimate output in the first five years of production. Therefore, the benefit of lower taxes is realized relatively quickly.

Incidentally, should Devon, Rosetta, Chevron, or some other company be successful in establishing oil production with high-volume fracking in Michigan, the local and state tax rates on wells with this type of production in Michigan compared to rates of other states would be even more favorable than those applied to natural gas and natural gas liquids production. Ernst and Young reported these rates as follows:

- Pennsylvania – 9.7%
- North Dakota – 16.8%
- Texas – 8.9%
- Michigan 7.5%

Did you already answer the amount of water needed to produce how many cubic feet of gas and I missed it? The destruction of water by chemical pollution seems to be a major disadvantage to obtaining gas by this method.

The 1-25 Well used about 8 million gallons of fresh water obtained from water wells drilled adjacent to the well. Fresh water used in fracking of the 1-25 Well is lost because it is either retained in the fracked formation or put in a disposal well.

The rest of the story is what happens to the natural gas produced by 1-25 well. Approximately 90 percent of natural gas is consumed in homes, power generation, or other combustion energy generation applications. The combustion of one billion cubic feet of natural gas will release about eleven million gallons of fresh water in vapor form: one molecule of methane (natural gas) combining with two molecules of oxygen yields one molecule of carbon dioxide and two molecules of water. If the 1-25 Well produces 3 billion cubic feet of natural gas that is burned (Encana has estimated an average Utica / Collingwood production at 5.3 billion cubic feet of gas equivalent per well), 33 million gallons of water will be produced when this gas is burned.

The net result is 8 million gallons of water used to frack the 1-25 Well was removed from use and an estimated 33 million gallons of water will be made available as gas from the 1-25 Well is burned.

All of this does not mean that the withdrawal of large volumes of fresh water adjacent to wells that are being fracked



should not be monitored. The DEQ has addressed the issues of the effect on the local water tables of fresh water withdrawals for fracking in their June 22, 2011 instructions on high volume fracking .

Is there a way other than disposal wells to deal with frack flowback water?

Yes. The short answer is that water cleanup systems are available to process flowback water for re-use. It is doubtful these systems will be used in Michigan, however, because of the availability of virtually unlimited supplies of fresh water and the ready availability of Class II disposal wells.

My short answer should not be taken as my endorsement of the Class II disposal wells used by Encana for the disposal of frack flowback water from the 1-25 Well. These disposal wells are shallow (2,200 and 3,000 feet deep), old (drilled in 1982 and 1985), and are required to have a test done on mechanical integrity of only a portion of their casing (down to 1,728 feet in the 2,200 foot well and 1,891 feet in the 3,000 foot well) and only once every five years. Plus, no ongoing radiological testing is required for Class II disposal well sites located in Michigan.

In your third article in you discussed a case in Ingham County Circuit Court where property owners in Gladwin County and Ban Michigan Fracking (the plaintiffs) had asked that the rules for "injection wells" be applied to high-volume fracked wells, which require advance disclosure of chemicals used in fracking . What has happened in this case?

On Sept. 25, 2012 Judge William Collette denied the petition of the Plaintiffs to make the requirements for "injection wells" apply to high-volume fractured wells. Therefore, it remains legal for service companies and oil and gas companies to inject chemicals into the rocks in Michigan without disclosing the chemicals or giving advance notice.

Once again, thanks to all of the good reader questions, I have exceeded my word limit. Next week I will conclude this series with the two most frequent questions I received. Am I in favor of fracking ? What is my opinion?

Lee Smith is a Certified Petroleum Geologist. He is a member of the American Association of Petroleum Geologists and the Society of Petroleum Engineers. Comments on this article can be directed to him at his consulting firm, Optimal Value Energy LLC, at [optimalvalue@att.net](mailto:optimalvalue@att.net)

#### **Property owners sue over gas drilling waste wells**

Saline Courier, The (Benton, AR) - Sunday, October 7, 2012

LITTLE ROCK - A group of residents in Independence and Faulkner counties are suing three natural gas drilling companies, claiming that waste fluids are improperly being pumped underneath land the companies don't own or lease.

An amended version of the lawsuit was filed Thursday in U.S. District Court in Little Rock, adding several plaintiffs and two of the drilling companies. The lawsuit seeks class status for affected landowners living above the gas-rich Fayetteville Shale formation in central Arkansas.

Houston-based Southwestern Energy Co. was the only company named in the original ver- sion of the suit, which was filed in August. Southwestern Energy filed a motion to dismiss the original suit, arguing the plaintiffs didn't show they had a claim.

Added to the amended version were Oklahoma Citybased Chesapeake Energy Corp. and Fort Worth, Texas-based XTO Energy Inc.

Spokesmen for Chesapeake and XTO declined comment Friday. Southwestern released a statement saying it complies with regulations and contracts in disposal of drilling waste.

"Southwestern Energy's underground injection wells are designed, constructed and operated to comply with all applicable laws and our own best practices to ensure the wastewater is safely injected into the approved disposal zone," the company said. "In addition, we have signed agreements that specifically give us permission to conduct the disposal activities described in the lawsuit," the company said.

The lawsuit notes that the companies charge against lease holders' royalties for disposal of the drilling fluids, which the plaintiffs claim contain chemicals that include formaldehyde, methanol and others.

To bring natural gas to the surface, drillers inject fluids under high pressure to fracture underground rock, a process sometimes called fracking . A portion of that fluid returns to the surface and the companies have to collect and dispose of it. It's that drilling fluid that is at the center of the lawsuit.

The plaintiffs, led by Robbie and Gwenna Hill of Quitman, argue that fluid that's injected at disposal sites is migrating

beneath their property as it fills cavities in porous rock deep below the surface.

"As a result of their activities, the (companies) are unjustly enriched by trespassing upon the lands of the plaintiffs and others, and were that not enough, the defendants are also receiving income for disposing of the oilfield waste on land owned by others," the lawsuit states. The term "oilfield waste" covers fluids involved in natural gas drilling.

The suit was filed by attorneys Timothy R. Holton and John R. Holton of Memphis, Tenn., and Michael P. McGartland of Fort Worth, Texas.

The suit says some of the plaintiffs have signed mineral leases with the companies but the court action claims those contracts do not include permission to dispose of excess drilling fluids at the sites.

Southwestern Energy's response to the original action said the land owners "plead no facts connecting Southwestern's actions with their supposed damages, which also lack any specificity. Further, plaintiffs willfully ignore the publicly recorded mineral leases that expressly allow injection of fracking fluids below their lands."

Southwestern attached copies of leases that note that fluids will be injected at the sites.

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